

IN THE DRAWINGS

The attached sheet of drawings, which includes Fig. 5, replaces the original sheet including Fig. 5. In amended Fig. 5, reference numbers 31b and 31c indicating a space and a winding recess respectively have been added.

Attachment : Replacement Sheet

REMARKS

Claims 1-6, 10, and 12-18 remain pending in the application. Claims 19-30 have been withdrawn from consideration by the Examiner, leaving claims 1-18 for consideration. Claims 7-9, and 11 have been canceled without prejudice or disclaimer of the subject matter thereof.

Reconsideration of the rejections and allowance of the pending application in view of the foregoing amendment and following remarks are respectfully requested.

In the Office Action of October 13, 2004, claims 1-4, and 6-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujiwara, U.S. Patent No. 5,955,814 (hereinafter "Fujiwara") in view of Suzuki et al, U.S. Patent No. 6,411,006 B2 ("Suzuki"), and further in view of Sun, U.S. Patent No. 6,034,461, claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fujiwara in view of Suzuki and Sun, and further in view of Hallerback, U.S. Patent No. 3,866,071 ("Hallerback"). These rejections are respectfully traversed.

Claim 1 has been amended to more clearly define a structural feature of the invention and to more clearly distinguish over the applied prior art references by incorporating the features of subject matter recited in claims 7-9. No new matter is introduced by the present amendment.

It is a disclosed object of the present invention to provide a motor stator assembly and a fabrication method thereof for fabricating a yoke by laminating a plurality of steel plate sheets and to fabricate a pole and a bobbin body by a powder metallurgy method thereby reducing required material cost and enhancing a motor performance.

To achieve the above-noted object, in an exemplary embodiment a stator assembly of a motor includes, inter alia, a plurality of yokes fabricated by laminating a plurality of steel plate sheets having predetermined length, a plurality of poles coupled between the yokes and fabricated by molding magnetic material using a mold, and a plurality of bobbin bodies, on which a coil that generates induced magnetism is wound, covering outer portions of the poles. The bobbin body includes an inner wing attached on outer portion of the guide portion on the pole, a body connected to the inner wing and mounted on the neck portion of the pole to be wound by the coil, and an outer wing protruded toward each side of the body to cover the coil. The inner wing is formed to be of a circular arc shape similar to the guide portion and formed to have a space therein so that the guide portion can be inserted. Further the body includes a penetrating hole having the same shape as that of the neck portion on inner side thereof so that the neck portion can be inserted therein, and the coil generating induced magnetism is wound a predetermined number of times on an outer side thereof.

Applicants respectfully submit that the cited references relied upon in the rejections under 35U.S.C. 103(a) do not disclose such a combination of features.

The primary Fujiwara reference refers to and is concerned specifically with a motor with a stator and a rotor in which the stator includes a plurality of decided members. The motor includes a pair of magnetic pole cores having poles composing two mutually opposite sides of the stator and arms extending in both directions from the poles, and yoke cores arranged between mutually opposite arms of the magnetic pole cores, wherein curved portions which are proximate to the arms of the magnetic pole cores are formed at both the ends of the yoke cores.

In other words, although Fujiwara includes a plurality of yokes 15, and poles 9, it fails to teach the body 31 including a penetrating hole 31a with the same shape as that of the neck portion 12 on inner side thereof so that the neck portion 12 can be inserted therein, or the pole 10 fabricated using the iron powder material nor the yoke 20 fabricated by using the Si-steel plate which has higher magnetic permeability and core loss characteristic, as recited in amended claim 1.

Further, although the secondary Suzuki reference includes the pole tooth 34 that may be of soft magnetic materials in addition to the electromagnetic steel sheets, the Sun reference includes a plurality of insulating plates 216a, 216b, and the Hallerback

reference includes a stator assembly and a rotor, none of the references teach or suggest the above-noted features recited in claim 1 of the present application.

Thus, even assuming, arguendo, that the teachings of the applied references can be properly combined, the asserted combination of the references would not result in the invention as recited in claim 1.

Thus, the rejection of independent claim 1 under 35 U.S.C. 103(a) is improper for at least these reasons, and withdrawal of such rejection is respectfully requested.

Any amendments to the claims which have been made in this amendment, and which have not been specifically noted to overcome a rejection based on prior art, should be considered to have been made for a purpose unrelated to patentability, and no estoppel should be deemed to be attached thereto.

Independent claim 1 is now in condition for allowance in view of the amendments and the above-noted remarks. Dependent claims 2-6, 10, and 12-18 are also submitted to be in condition for allowance in view of their dependence from the allowable base claims and also at least based upon their recitations of additional features of the present

The drawings have been objected to under 37 CFR 1.83(a) because the “a space therein so that the guide portion can be inserted” in claim 8, “a penetrating hole” in claim 9, “a winding recess” in claim 10, and “the outer wing is formed to have the same height as that of the yoke” in claim 11 are not shown therein.

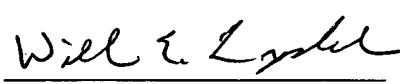
By the present response, the drawings have been amended to show the above-indicated features by adding reference numbers 31b and 31c in Fig. 5, the specification has been amended to added reference numbers 31b and 31c therein, and claim 11 has been canceled. It is noted that the "penetrating hole 31a" is also depicted in Fig.

5. Accordingly, the drawings are believed to fully comply with the provisions of 35 CFR 1.83(a). It is respectfully requested, therefore, that the objection to the drawings be withdrawn.

Based on the above, it is respectfully submitted that this application is now in condition for allowance, and a Notice of Allowance is respectfully requested.

Should the Examiner have any questions or comments regarding this response, or the present application, the Examiner is invited to contact the undersigned at the below-listed telephone number.

Respectfully submitted,  
Jin-Soo PARK et al.

  
Bruce H. Bernstein  
Reg. No. 29,027

William E. Lyddane  
Reg. No. 41,568

March 14, 2005  
GREENBLUM & BERNSTEIN, P.L.C.  
1950 Roland Clarke Place  
Reston, VA 20191  
(703) 716-1191